

President Harry S. Truman Fellowship in National Security Science and Engineering

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1.0 FELLOWSHIP DESCRIPTION

For over fifty years, Sandia National Laboratories (Sandia) has advanced the frontiers of science and engineering in the national interest. The President Harry S. Truman Fellowship in National Security Science and Engineering (Truman Fellowship) provides an opportunity each year for exceptional scholars to join Sandia in the continuation of this tradition of excellence. The Fellowship is named for President Harry S. Truman who, in 1949, asked AT&T to accept managerial responsibility of Sandia and challenged us to provide "an exceptional service in the national interest"—a motto that leads us to excel to this day.

The Truman Fellowship program seeks to attract the best nationally recognized, new Ph.D. scientists and engineers to the Laboratory. The Truman Fellow benefits by having the opportunity to work on a topic of his or her choosing with some of the Nation's best scientists and engineers. Sandia benefits by the expected transfer of new science and technology that enhances the Laboratories' ability to address future DOE missions. Truman Fellowship candidates are expected to have solved a major scientific or engineering problem in their thesis work or will have provided a new approach or insight to a major problem, as evidenced by a recognized impact in their field.

The Truman Fellowship provides the opportunity for recipients to pursue independent research of their own choosing that supports the national security mission of Sandia National Laboratories. The appointee is expected to foster creativity and to stimulate exploration of forefront science and technology and high-risk, potentially high-value R&D. The period of Fellowship appointment is for three years.

Sandia National Laboratories provides Truman Fellows a stimulating environment to broaden their education, training, and scientific research experience. Truman Fellows provide valuable stimulus to the research efforts of Sandia and make available the most recent developments of university science and engineering departments, as well as enhancing communication between Sandia, industry, and universities. The experience offers Fellows the opportunity to derive significant professional accomplishment and advancement of their career goals by conducting world class research, as well as through participating in scientific and technical conferences, presenting seminars and publishing the results of their work.

A Sandia Senior Scientist, Senior Engineer or Laboratory Fellow may mentor each Truman Fellow. The emphasis on research mentoring allows Fellows to become an integral member of Sandia research and development teams while having the opportunity to acquire unique skills and growth during early career development.

2.0 SANDIA NATIONAL LABORATORIES MISSION

In support of its primary mission in national security, Sandia maintains a strong commitment to both basic and applied science and their engineering applications. Our research advances fundamental knowledge while providing a foundation for the major scientific and technological development efforts that we carry out for the Department of Energy, and other sponsors. Sandia's broad-ranging science and technology research and development programs include:

- Advanced Computing, Information Systems and Mathematics
- Bioscience and Technology
- Combustion, Chemical and Plasma Sciences
- Engineering Sciences
- Geosciences
- Intelligent Systems and Robotics
- Materials Science and Technology
- Microelectronics and Microsystems

- Nano Sciences and Technology
- Pulsed Power and Directed Energy
- Remote Sensing and Satellite Systems

For additional information on Sandia's mission, click <u>here</u> and for information on our capabilities, click <u>here</u>.

3.0 FELLOWSHIP ELIGIBILITY CRITERIA

- a. U.S. citizenship
- b. Ability to obtain a DOE "Q" clearance
- c. Research in areas of interest to national security
- d. Candidates must have been awarded a Ph.D. within the past 3 years at the time of application OR will have completed all Ph.D. requirements by commencement of appointment
- e. Candidates seeking their first national laboratory appointment
- f. Sandia National Laboratories is an equal employment opportunity/affirmative action employer. As a federal contractor, we request certain information from those applying for jobs for the purpose of gathering data for our security and affirmative action planning processes. The information provided is kept confidential and used only in accordance with federal regulations.

3.1 Fellowship Candidates

Candidates for the Truman Fellowship must display extraordinary abilities in scientific research and show clear and definite promise of becoming outstanding leaders in the research they pursue. As stated above, candidates must have solved a major scientific or engineering problem or have provided a new approach or insight to a major problem, as evidenced by a recognized impact in their field. The quality of the prospective candidate, irrespective of discipline, remains the overriding consideration when evaluating the application.

3.2 Fellowship Selection

Selection for this award is based on the candidate's original contribution to solving an important problem, its impact, research proposal, academic record and recommendations, science and engineering background, research interests and professional goals, and compatibility of background and interests with Sandia's research needs.

3.3 Fellowship Research Proposal

The research proposal is important to the evaluation of a candidate's application. Research proposals may address long-term science and engineering needs that support the Laboratories' mission or may be more focused and obviously aligned with our current mission. The Truman Fellowship Selection Committee evaluates research proposals objectively, considering the quality, the ability to publish, and the potential impact of the research on the scientific community.

4.0 FELLOWSHIP APPOINTMENT TERM

The Truman Fellowship is a three-year appointment. The appointment normally commences on October 1, although exceptions may be made to accommodate special circumstances. Truman Fellows may be hired as regular staff at any time during the term of the assignment. The effective service date for a converted employee is the start date of the initial term of temporary employment provided there is no more than a 30-day break in service.

5.0 FELLOWSHIP SALARY AND BENEFITS

For Truman Fellows beginning their appointments in 2008, the starting salary is \$98,900. The salary is subject to deductions for income tax, Social Security, and the candidate's share of benefits. Fellows become full-time temporary employees of Sandia National Laboratories and are eligible for a benefits package that includes health, vision, and dental insurance; savings and income plan (40lk) and paid holidays and vacation. An incoming relocation benefit is included. For a full description of current benefits, click here. Truman Fellows are eligible for the benefits offered to limited-term employees.

6.0 FELLOWSHIP CRITERIA

Upon being accepted as a Truman Fellow, the following criteria must be adhered to during the term of appointment.

6.1 Location

Truman Fellow appointments require a full-time commitment to the research program at Sandia, and Fellows must be in residence at Sandia (NM or CA) during the entire period of the appointment. In some cases, Sandia may provide for temporary location at another facility to meet the specific needs of the research program.

6.2 Schedule and Reports

The proposed research must be scheduled to meet the overall research needs of Sandia. Truman Fellows must submit annual progress reports and a final report at the end of the appointment. These reports include an abstract of the research conducted and copies of publications resulting from it. If future papers are published as a result of research performed at Sandia, copies must be provided to Sandia.

6.3 Acknowledgement Statement

All published reports, journal articles, or professional presentations that are based on the research conducted during the term of the Truman Fellowship must carry the following acknowledgment:

"This research was supported in part by an appointment to the Sandia National Laboratories Truman Fellowship in National Security Science and Engineering, sponsored by Sandia Corporation (a wholly owned subsidiary of Lockheed Martin Corporation) as Operator of Sandia National Laboratories under its U.S. Department of Energy Contract No. DE-AC04-94AL85000."

6.4 Obligations

Truman Fellows are required to sign and abide by the appointment letter and the "Proprietary Information and Innovation Agreement" concerning discoveries, inventions, data, and copyrights, and a disclaimer of liability.

7.0 APPLICATION PROCESS

Contact the Program Coordinator, Yolanda Moreno at (505) 284-2106 for further guidance and assistance regarding the application package. If you have questions concerning the on-line application process, contact Drew Parsons at (505) 284-1525.

7.1 Application Package Contents

In addition to submitting a formal application packet, candidates must also complete an electronic application here. Scroll to "How to Apply" at the bottom of the page for the application procedure.

Please also submit two (2) hard copies and a CD or disk of the application packet. Items 7.1 through 7.6 in Word or pdf format shall be included (see 7.10). On the proposal cover page include the following:

- a. Full name
- b. Current address, e-mail address, and permanent address for notification
- c. Telephone and fax numbers
- d. Current department and institution
- e. Title of proposed research project
- f. Planned starting date of the fellowship
- g. Ph.D. granting institution and year of receipt (or date expected)
- h. A listing of all countries of which applicant is a citizen
- i. Name of a Sandia person/organization that fits your research interest *

7.2 Interest Statement

A statement of your reasons for interest in the Truman Fellowship, current career goals, and potential role of the fellowship in attaining such goals (250 words).

7.3 Thesis Abstract

The applicant's Ph.D. thesis abstract must be included in the application packet.

7.4 Curriculum Vitae

Curriculum vitae must include educational background, topic of doctoral dissertation, positions held to date, scientific awards and grants received (citing source, duration, and amount), full titles and references of all publications.

7.5 Research Proposal

A research proposal (not to exceed ten pages plus appendices) describing the scientific importance of the proposed work, including considerable specificity as to the research plan and data to be obtained, written for a broad technical audience with field-specific terms explained fully. In the proposal, present the goals of the proposed research and plans to achieve them. Provide a clear objective of the research, the expected results, and the impact that the proposed work may have on Sandia's Science and Technology capabilities. Include background material,

^{*} Truman Fellows work closely with a Sandia sponsor. If you already know of a person or organization that matches your interest, please identify them. If not, please contact the Program Coordinator so you can be matched with a potential sponsor.

such as previous studies done, and motivation for the proposed research. If desired, copies of reprints may be attached to each collated copy of the proposal. State the planned approach in order to clarify the direction of the research. Propose a schedule for the research and explain the importance and benefits to Sandia. No budget is required unless supplementary support is requested as described in the following section. Please see Appendix for further guidance.

7.6 Research Proposal Additional Support Statement

The research proposal may request additional support for research and research-related activities. Requests may include: lab materials and supplies; conference/symposia support (includes travel, per diem and conference fees); professional society membership fee(s); and other support appropriate for the field of research. Identify new equipment required to conduct your research and/or your need to use Sandia's existing equipment. All supplemental requests must be justified in the proposal. Items necessary and reasonable to conduct the proposed research will be provided (office space, computer, etc.) and need not be included in the additional support request.

7.7 Reference Letters

The application must include reference letters from three nationally recognized scientists in relevant disciplines who are knowledgeable about the candidate's capabilities and previous research, and who have been provided a copy of the candidate's research proposal. The letters should not be included in the application itself, but should be sent by the writer directly to Sandia at the address in Section 7.10. At least one of the references should have personal knowledge of the candidate's doctoral research and all must comment on the summary of the major findings of recent research. It is the candidate's responsibility to assure that reference letters are received by the proposal deadline.

7.8 Transcripts

An official copy of undergraduate and graduate transcripts must be provided, and be sent directly by the university to the address in Section 7.10.

7.9 Application Confirmation

Provide a stamped, self-addressed postcard (if you desire) to confirm that application materials have been received (allow at least three weeks for processing). All applications should be final and complete. No substitutions or additions are permitted.

7.10 Application Submission and Deadline

All hard copy application materials must be **received by COB December 5**th at the address listed below, for appointments that commence on October 1 of the following year. In addition, complete an online application at

http://www.sandia.gov/employment/special-prog/truman/index.html#apply
Scroll to "How to Apply" at the bottom of the page for the application procedure.

Graduate Programs Administrator Truman Fellowship Sandia National Laboratories P.O. Box 5800, MS-1351 Albuquerque, NM 87185-1351

Fed Ex: 1515 Eubank Boulevard SE, MS-1351 Albuquerque, NM 87123-1351

8.0 PROPOSAL REVIEW PROCESS

A panel of senior scientists and engineers reviews applications for the Truman Fellowship annually before February 1. Interviews will be completed before April 1 for an October 1 start date. The Committee evaluates the application to determine the relevance to Sandia mission, the potential impact of the research in the scientific community, and the quality of the research proposal.

Appendix

Truman Fellow/LDRD Proposal* Requirements

*Proposal must be submitted via Sandia's internal web by a Sandia PI; it may be prior to the Truman Fellow's effective date of hire, in which case the PM or mentor shall submit the proposal and obtain necessary reviews, signatures, documentation, etc. The Fellow becomes the PI on the project once he/she is on roll as an employee.

NOTE: Truman proposals submitted during the initial application process are not to exceed ten pages plus appendices. Once selected, the Truman Fellow's LDRD proposal is required to be a maximum of four pages, to be uploaded to the LDRD website, in addition to completing the web pages on the LDRD home page. Portions of the original proposal may be used for this purpose. Keeping word limits for the Abstract, Proposed Work, and Tie to Mission portions will assist in the web submission.

General Information:

LDRD homepage: http://ldrd.sandia.gov/cgi-bin/WebObjects/LDRDMain

Proposals shall include:

A proposal summary, including an Abstract of 300 words or less; a description of the work proposed (200 words or less); and a description of how the work ties to Sandia's DOE mission (500 *characters* or less). Furthermore:

- An Overview of the problem and Idea (key obstacles, programmatic objectives)
- Proposed R&D to be conducted, including 1) the proposed technical approach (highlight creativity and innovation, goals, barriers, expected results); 2) key R&D goals and project milestones (measure of progress and representation of task completion); 3)highlight the technical risk, the scientific merits, and the likelihood of success; and, 4) discuss previous and other ongoing work and its relationship to the proposed work.
- Include a discussion of your qualifications to perform the work proposed
- Include a budget if supplemental support beyond the \$245k provided by the Fellowship is anticipated (~\$100k for salary, ~100k funding, ~\$50k Sandia overhead).
- Discuss relevance to Sandia's mission, programmatic benefit to Sandia, plans for publishing in scientific journals, etc.
- Define all acronyms.

Definitions:

Abstract: 300 words in length, maximum; emphasize the proposed R&D, explaining the cutting-edge, high-risk, high potential science, technology and/or engineering. Include a description of anticipated benefits.

Proposed Work: 200 words in length, maximum; this section describes, in a concise manner, high-level R&D milestones and metrics that can be used to assess the progress of the proposal

Relevance/Tie to DOE Mission: 500 *characters* in length; briefly describe relevance or anticipated benefits to the national security mission of DOE and/or other federal agencies and how these areas would benefit from the results of your project (the four strategic goals of DOE include Defense, Energy, Science, and Environment)

Annual Reports due, usually each September; and a final SAND report at the conclusion of the three-year project.